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EXAMINER

CHU, WUTCHUNG

ART UNIT	PAPER NUMBER
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2619

NOTIFICATION DATE	DELIVERY MODE
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ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary

Application No.

10/675,158

Applicant(s)

KENNEALY, ROGER D.

Examiner

Wutchung Chu

Art Unit

2619

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 December 2007.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-37 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-37 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 12/14/2007 has been entered.

Response to Amendment

1. This communication is in response to application's amendment filed on 12/14/2007. Claims 1-37 are pending.

Claim Rejections - 35 USC § 103

2. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shaffer et al. (US6324409).

Regarding claim 1, Shaffer et al. discloses a system and method for optimizing telecommunication signal quality **(see col. 2 lines 17-24)** comprising:

- a first network **(see figure 3 box 306a and 306b)** operable to communicate media in at least one encoding format **(see col. 6 line 7-12 voice signal in G.723 may be transcoded into pulse code modulation (PCM))**;
- a second network **(see column 6 line 30-45 voice in GSM may be transcoded into PCM and may again be transcoded into G.711 or G.723 and col. 4 lines 63-65 data objects or programs instructions, from another network, or might out put information to another network and col. 5 lines 9-10 across a network such as internet, intranet networks, or local area networks, therefore it is inherent that it includes a second network)** operable to communicate media in at least one encoding format **(see col. 6 line 7-12 voice signal in G.723)**;
- a gateway, operable to:
 - receive a call setup message from the first network **(see figure 5 box 502 call request is intercepted by gateway X)**, the call setup message signaling for a media channel for transporting media between a first device and a second device **(see figure 4 box 400 sender sends a signaling**

message to receiver and figure 5 box 500 client A sends a call request to client B);

- **identify a first encoding format for the media communicated with the first network (see figure 4 box 408 determining an end-to-end codign scheme for the call (requiring a least number of transcoding) and col. 6 line 7-12 voice signal in G.723 may be transcoded into pulse code modulation (PCM));**
- **determine a second encoding format (see col. 6 lines 14-15 a modern network which shows at least 6 different possible transcoding locations and col. 6 lines 30-45 shows a scenario where at least two transcoding take place) for the media communicated with the second network (see figure 4 box 408 determining an end-to-end codign scheme for the call (requiring a least number of transcoding) and column 6 line 30-45 voice in GSM may be transcoded into PCM and may again be transcoded into G.711 or G.723 and col. 4 lines 63-65 data objects or programs instructions, from another network, or might out put information to another network and col. 5 lines 9-10 across a network such as internet, intranet networks, or local area networks, therefore it is inherent that it includes a second network);**
- **identify a remote element to receive the call setup message (see figure 5 box 508 gateway Y contacts client B and determines client B's capabilities available at the moment and figure 5 box 510 gateway Y**

- sends a second signaling message to gateway X to inform gateway X of client B's and intermediate stations' capabilities); and**
- **transmit the call setup message to the remote element (see figure 5 box 506 gateway Y receives the first signaling message).**
 - **modify transcoding information in the call setup message (see col. 7 lines 12-14 the signaling message collects capabilities of a station, the station may list its capabilities onto the signaling message which corresponds to modify transcoding information in the call setup message); the transcoding information indicating a number of transcoding points on the media channel (see col. 7 lines 21-29 and figure 4 step 408 end-to-end coding scheme which is determined for the call requires a least number of transcoding where it is inherent for it to identify the number of transcodings for it to determine a least number of transcoding out of the available);**
 - **identify a remote element to receive the call setup message (see col. 6 lines 59-63 signaling message, such as a user-to-user signal may be used at the beginning of a call setup between parties to send a message between end parties); and**
 - **transmit the call setup message to the remote element (see col. 7 lines 12-14 the signaling message collects capabilities of a station, the station may list its capabilities onto the signaling**

message where this message with the listed capabilities would be sent to the end station).

Shaffer et al. does not specifically teach:

- if the first encoding format and the second encoding format are different;

Shaffer et al. teach determining end-to-end coding scheme (**see col. 7 lines 1-30**), and identify the coding scheme of the sender and receiver, and along the call route and to determine a least number of transcoding transmission among the available. That is, it would identify if the sender and the receiver, and along the call route of their coding schemes, and would choose the least number of transcoding transmission among the available (**see col. 7 and lines 24-30**). And first signaling message may simply be sent to collect information regarding coding capabilities of other devices along the call route (**see col. 7 lines 53-60**). It would have been obvious to one of the ordinary at the time of the invention was made to include determining if the first encoding format and the second encoding format are different, because determining end-to-end coding scheme through signaling message, as Shaffer et al., is a method of determining coding scheme.

Regarding claim 2, Shaffer et al. teaches the gateway is further operable to modify the transcoding information in the call setup message by incrementing a counter value of the transcoding information (**see column 7 lines 22-29 where the number of transcoding is determined**).

Regarding claims 3, Shaffer et al. teaches the gateway is further operable to modify the transcoding information in the call setup message by appending information

identifying an encoding format to the transcoding information (**see figure 4 box 408 determining an end-to-end codign scheme for the call (requiring a least number of transcoding) and col. 6 line 7-12 voice signal in G.723 may be transcoded into pulse code modulation (PCM)).**

Regarding claims 4, Shaffer et al. teaches the gateway is further operable to determine the second encoding format based on at least the transcoding information in the call setup message (**see figure 4 box 408 determining an end-to-end codign scheme for the call (requiring a least number of transcoding) and column 6 line 30-45 voice in GSM may be transcoded into PCM and may again be transcoded into G.711 or G.723).**

Regarding claims 5, Shaffer et al. teaches the gateway is further operable to determine the second encoding format based on at least whether a counter value of the transcoding information is less than a predetermined maximum (**see figure 6 box 654, 656, 658 and 660 where more than one end-to-end coding schemes are determined and compared, and figure 6 box 658 select result with minimum number of transcoding and where the higher number of transcoding corresponds to predetermined maximum).**

Regarding claims 6, Shaffer et al. teaches the gateway is further operable to determine the second encoding format based on a cost associated with the second format (**see column 9 line 60).**

Regarding claims 7, Shaffer et al. teaches the gateway is further operable to reject the call setup message, if the first encoding format and the second encoding

format are different and a counter value of the transcoding information is equal to or greater than a predetermined maximum value (see column 9 line 39-46 and figure 6B box 658 where more than one end-to-end coding schemes are determined and compared, and select result with minimum number of transcoding corresponds to reject the call setup message that has a greater value in transcoding, and the higher number of transcoding corresponds to predetermined maximum).

Regarding claims 8, Shaffer et al. teaches the gateway is further operable to identify the remote element to receive the call setup message based on at least the transcoding information (see figure 5 box 508 gateway Y contacts client B and determines client B's capabilities available at the moment and figure 5 box 510 gateway Y sends a second signaling message to gateway X to inform gateway X of client B's and intermediate stations' capabilities).

Regarding claims 9, Shaffer et al. teaches the gateway is further operable to identify the remote element to receive the call setup message (see figure 5A box 510 gateway Y sends a second signaling message to gateway X to inform gate X of client B's and intermediate stations' capabilities, and figure 5A box 512 gateway X receives Q and determines an end-to-end coding scheme) based on at least whether a counter value of the transcoding information(see column 7 line 22-29 where the number of transcoding is determined) is less than a predetermined maximum (see column 9 line 39-46 and figure 6B box 658 where more than one end-to-end coding schemes are determined and compared, and select result with minimum

number of transcoding, and the higher number of transcoding corresponds to predetermined maximum).

Regarding claim 10, Shaffer et al. teach a method for signaling to establish telecommunication service between a first and a second network (see col. 7 lines 22-30) comprising:

- **a gateway, operable to:**
 - **receive a call setup message from the first network (see figure 5 box 502 call request is intercepted by gateway X), the call setup message signaling for a media channel for transporting media between a first device and a second device (see figure 4 box 400 sender sends a signaling message to receiver and figure 5 box 500 client A sends a call request to client B);**
 - **identify a first encoding format for the media communicated with the first network (see figure 4 box 408 determining an end-to-end coding scheme for the call (requiring a least number of transcoding) and col. 6 line 7-12 voice signal in G.723 may be transcoded into pulse code modulation (PCM));**
 - **determine a second encoding format for the media communicated with the second network (see figure 4 box 408 determining an end-to-end coding scheme for the call (requiring a least number of transcoding) and column 6 line 30-45 voice in GSM may be transcoded into PCM and may again be transcoded into G.711 or G.723);**

- identify a remote element to receive the call setup message (see figure 5 box 508 gateway Y contacts client B and determines client B's capabilities available at the moment and figure 5 box 510 gateway Y sends a second signaling message to gateway X to inform gateway X of client B's and intermediate stations' capabilities); and
- transmit the call setup message to the remote element (see figure 5 box 506 gateway Y receives the first signaling message).
- modify transcoding information in the call setup message (see col. 7 lines 12-14 the signaling message collects capabilities of a station, the station may list its capabilities onto the signaling message which corresponds to modify transcoding information in the call setup message); the transcoding information indicating a number of transcoding points on the media channel (see col. 7 lines 21-29 and figure 4 step 408 end-to-end coding scheme which is determined for the call requires a least number of transcoding where it is inherent for it to identify the number of transcodings for it to determine a least number of transcoding out of the available);
 - identify a remote element to receive the call setup message (see col. 6 lines 59-63 signaling message, such as a user-to-user signal may be used at the beginning of a call setup between parties to send a message between end parties); and

- transmit the call setup message to the remote element (**see col. 7 lines 12-14 the signaling message collects capabilities of a station, the station may list its capabilities onto the signaling message where this message with the listed capabilities would be sent to the end station**).

Shaffer et al. does not specifically teach:

- if the first encoding format and the second encoding format are different;

Shaffer et al. teach determining end-to-end coding scheme (**see col. 7 lines 1-30**), and identify the coding scheme of the sender and receiver, and along the call route and to determine a least number of transcoding transmission among the available. That is, it would identify if the sender and the receiver, and along the call route of their coding schemes, and would choose the least number of transcoding transmission among the available (**see col. 7 and lines 24-30**). And first signaling message may simply be sent to collect information regarding coding capabilities of other devices along the call route (**see col. 7 lines 53-60**). It would have been obvious to one of the ordinary at the time of the invention was made to include determining if the first encoding format and the second encoding format are different, because determining end-to-end coding scheme through signaling message, as Shaffer et al., is a method of determining coding scheme.

Regarding claim 11, Shaffer et al. teaches modify the transcoding information in the call setup message by incrementing a counter value of the transcoding information (**see column 7 line 22-29 where the number of transcoding is determined**).

Regarding claims 12, Shaffer et al. teaches modify the transcoding information in the call setup message by appending information identifying an encoding format to the transcoding information (see figure 4 box 408 determining an end-to-end codign scheme for the call (requiring a least number of transcoding) and col. 6 line 7-12 voice signal in G.723 may be transcoded into pulse code modulation (PCM)).

Regarding claims 13, Shaffer et al. teaches determine the second encoding format based on at least the transcoding information in the call setup message (see figure 4 box 408 determining an end-to-end codign scheme for the call (requiring a least number of transcoding) and column 6 line 30-45 voice in GSM may be transcoded into PCM and may again be transcoded into G.711 or G.723).

Regarding claims 14, Shaffer et al. teaches determine the second encoding format based on at least whether a counter value of the transcoding information is less than a predetermined maximum (see figure 6 box 654, 656, 658 and 660 where more than one end-to-end coding schemes are determined and compared, and figure 6 box 658 select result with minimum number of transcoding and where the higher number of transcoding corresponds to predetermined maximum).

Regarding claims 15, Shaffer et al. teach determine the second encoding format based on a cost associated with the second format (see column 9 line 60).

Regarding claims 16, Shaffer et al. teaches reject the call setup message, if the first encoding format and the second encoding format are different and a counter value of the transcoding information is equal to or greater than a predetermined maximum value (see column 9 line 39-46 and figure 6B box 658 where more than one end-to-

end coding schemes are determined and compared, and select result with minimum number of transcoding corresponds to reject the call setup message that has a greater value in transcoding, and the higher number of transcoding corresponds to predetermined maximum).

Regarding claims 17, Shaffer et al. teaches identify the remote element to receive the call setup message based on at least the transcoding information (see figure 5 box 508 gateway Y contacts client B and determines client B's capabilities available at the moment and figure 5 box 510 gateway Y sends a second signaling message to gateway X to inform gateway X of client B's and intermediate stations' capabilities).

Regarding claims 18, Shaffer et al. teaches identify the remote element to receive the call setup message (see figure 5A box 510 gateway Y sends a second signaling message to gateway X to inform gate X of client B's and intermediate stations' capabilities, and figure 5A box 512 gateway X receives Q and determines an end-to-end coding scheme) based on at least whether a counter value of the transcoding information(see column 7 line 22-29 where the number of transcoding is determined) is less than a predetermined maximum (see column 9 line 39-46 and figure 6B box 658 where more than one end-to-end coding schemes are determined and compared, and select result with minimum number of transcoding, and the higher number of transcoding corresponds to predetermined maximum).

Regarding claim 19, Shaffer et al. teach a device for facilitating communication between a first network and a second network in a telecommunication system (see col. 7 lines 22-30) comprising:

- a first interface (see figure 5 box 502 gateway X corresponds to first interface) operable to communicate with a first network (see figure 3 box 306a) and operable to receive a call setup message (see figure 5a box 502 call request is intercepted by gateway X), the call setup message signaling for a media channel for transporting media between a first device and a second device (see col. 7 lines 46-52 and column 4 line 59-column 5 line 13 corresponds to first and second interface and processor);
- a second interface (see figure 5a box 506 gateway y corresponds to second interface) operable to communicate with a second network (see figure 3 box 306b and column 4 line 59-column 5 line 13 corresponds to first and second interface and processor);
- a processor (see figure 1 box 102 CPU) operable to:
 - identify a first encoding format for the media communicated with the first network (see figure 4 box 408 determining an end-to-end coding scheme for the call (requiring a least number of transcoding) and col. 6 line 7-12 voice signal in G.723 may be transcoded into pulse code modulation (PCM));
 - determine a second encoding format (see col. 6 lines 14-15 a modern network which shows at least 6 different possible transcoding

- locations and col. 6 lines 30-45 shows a scenario where at least two transcoding take place) for the media communicated with the second network (see figure 4 box 408 determining an end-to-end coding scheme for the call (requiring a least number of transcoding) and column 6 line 30-45 voice in GSM may be transcoded into PCM and may again be transcoded into G.711 or G.723 and col. 4 lines 63-65 data objects or programs instructions, from another network, or might out put information to another network and col. 5 lines 9-10 across a network such as internet, intranet networks, or local area networks, therefore it is inherent that it includes a second network);**
- **modify transcoding information in the call setup message (see col. 7 lines 12-14 the signaling message collects capabilities of a station, the station may list its capabilities onto the signaling message which corresponds to modify transcoding information in the call setup message); the transcoding information indicating a number of transcoding points on the media channel (see col. 7 lines 21-29 and figure 4 step 408 end-to-end coding scheme which is determined for the call requires a least number of transcoding where it is inherent for it to identify the number of transcodings for it to determine a least number of transcoding out of the available);**
 - **identify a remote element to receive the call setup message (see col. 6 lines 59-63 signaling message, such as a user-to-user**

signal may be used at the beginning of a call setup between parties to send a message between end parties); and

- **transmit the call setup message to the remote element (see col. 7 lines 12-14 the signaling message collects capabilities of a station, the station may list its capabilities onto the signaling message where this message with the listed capabilities would be sent to the end station).**

Shaffer et al. does not specifically teach:

- if the first encoding format and the second encoding format are different;

Shaffer et al. teach determining end-to-end coding scheme (see col. 7 lines 1-30), and identify the coding scheme of the sender and receiver, and along the call route and to determine a least number of transcoding transmission among the available. That is, it would identify if the sender and the receiver, and along the call route of their coding schemes, and would choose the least number of transcoding transmission among the available (see col. 7 and lines 24-30). And first signaling message may simply be sent to collect information regarding coding capabilities of other devices along the call route (see col. 7 lines 53-60). It would have been obvious to one of the ordinary at the time of the invention was made to include determining if the first encoding format and the second encoding format are different, modify transcoding information in the call setup message, because determining end-to-end coding scheme through signaling message, as Shaffer et al., is a method of determining coding scheme.

Regarding claim 20, Shaffer et al. teaches the processor is further operable to modify the transcoding information in the call setup message by incrementing a counter value of the transcoding information **(see column 7 line 22-29 where the number of transcoding is determined)**.

Regarding claims 21, Shaffer et al. teaches the processor is further operable to modify the transcoding information in the call setup message by appending information identifying an encoding format to the transcoding information **(see figure 4 box 408 determining an end-to-end codign scheme for the call (requiring a least number of transcoding) and col. 6 line 7-12 voice signal in G.723 may be transcoded into pulse code modulation (PCM))**.

Regarding claims 22, Shaffer et al. teaches the processor is further operable to determine the second encoding format based on at least the transcoding information in the call setup message **(see figure 4 box 408 determining an end-to-end codign scheme for the call (requiring a least number of transcoding) and column 6 line 30-45 voice in GSM may be transcoded into PCM and may again be transcoded into G.711 or G.723)**.

Regarding claims 23, Shaffer et al. teaches the processor is further operable to determine the second encoding format based on at least whether a counter value of the transcoding information is less than a predetermined maximum **(see figure 6 box 654, 656, 658 and 660 where more than one end-to-end coding schemes are determined and compared, and figure 6 box 658 select result with minimum**

number of transcoding and where the higher number of transcoding corresponds to predetermined maximum).

Regarding claims 24, Shaffer et al. teach the processor is further operable to determine the second encoding format based on a cost associated with the second format (see column 9 line 60).

Regarding claims 25, Shaffer et al. teaches the processor is further operable to reject the call setup message, if the first encoding format and the second encoding format are different and a counter value of the transcoding information is equal to or greater than a predetermined maximum value (see column 9 line 39-46 and figure 6B box 658 where more than one end-to-end coding schemes are determined and compared, and select result with minimum number of transcoding corresponds to reject the call setup message that has a greater value in transcoding, and the higher number of transcoding corresponds to predetermined maximum).

Regarding claims 26, Shaffer et al. teaches the processor is further operable to identify the remote element to receive the call setup message based on at least the transcoding information (see figure 5 box 508 gateway Y contacts client B and determines client B's capabilities available at the moment and figure 5 box 510 gateway Y sends a second signaling message to gateway X to inform gateway X of client B's and intermediate stations' capabilities).

Regarding claims 27, Shaffer et al. teaches the processor is further operable to identify the remote element to receive the call setup message (see figure 5A box 510 gateway Y sends a second signaling message to gateway X to inform gate X of

client B's and intermediate stations' capabilities, and figure 5A box 512 gateway X receives Q and determines an end-to-end coding scheme) based on at least whether a counter value of the transcoding information(see column 7 line 22-29 where the number of transcoding is determined) is less than a predetermined maximum (see column 9 line 39-46 and figure 6B box 658 where more than one end-to-end coding schemes are determined and compared, and select result with minimum number of transcoding, and the higher number of transcoding corresponds to predetermined maximum).

Regarding claim 28, Shaffer et al. teach a computer program stored on a computer readable medium, the computer program operable to **(see column 4 lines 18-29):**

- **receive a call setup message from the first network (see figure 5 box 502 call request is intercepted by gateway X), the call setup message signaling for a media channel for transporting media between a first device and a second device (see figure 4 box 400 sender sends a signaling message to receiver and figure 5 box 500 client A sends a call request to client B);**
- **identify a first encoding format for the media communicated with the first network (see figure 4 box 408 determining an end-to-end coding scheme for the call (requiring a least number of transcoding) and col. 6 line 7-12 voice signal in G.723 may be transcoded into pulse code modulation (PCM));**
- **determine a second encoding format (see col. 6 lines 14-15 a modern network which shows at least 6 different possible transcoding locations and col. 6 lines 30-45 shows a scenario where at least two transcoding take place) for**

- the media communicated with the second network (see figure 4 box 408 determining an end-to-end coding scheme for the call (requiring a least number of transcoding) and column 6 line 30-45 voice in GSM may be transcoded into PCM and may again be transcoded into G.711 or G.723 and col. 4 lines 63-65 data objects or programs instructions, from another network, or might output information to another network and col. 5 lines 9-10 across a network such as internet, intranet networks, or local area networks, therefore it is inherent that it includes a second network);
- modify transcoding information in the call setup message (see col. 7 lines 12-14 the signaling message collects capabilities of a station, the station may list its capabilities onto the signaling message which corresponds to modify transcoding information in the call setup message); the transcoding information indicating a number of transcoding points on the media channel (see col. 7 lines 21-29 and figure 4 step 408 end-to-end coding scheme which is determined for the call requires a least number of transcoding where it is inherent for it to identify the number of transcodings for it to determine a least number of transcoding out of the available);
 - identify a remote element to receive the call setup message (see col. 6 lines 59-63 signaling message, such as a user-to-user signal may be used at the beginning of a call setup between parties to send a message between end parties); and

- o transmit the call setup message to the remote element (**see col. 7 lines 12-14 the signaling message collects capabilities of a station, the station may list its capabilities onto the signaling message where this message with the listed capabilities would be sent to the end station).**

Shaffer et al. does not specifically teach:

- if the first encoding format and the second encoding format are different,;

Shaffer et al. teach determining end-to-end coding scheme (**see col. 7 lines 1-30**), and identify the coding scheme of the sender and receiver, and along the call route and to determine a least number of transcoding transmission among the available. That is, it would identify if the sender and the receiver, and along the call route of their coding schemes, and would choose the least number of transcoding transmission among the available (**see col. 7 and lines 24-30**). And first signaling message may simply be sent to collect information regarding coding capabilities of other devices along the call route (**see col. 7 lines 53-60**). It would have been obvious to one of the ordinary at the time of the invention was made to include determining if the first encoding format and the second encoding format are different, modify transcoding information in the call setup message, because determining end-to-end coding scheme through signaling message, as Shaffer et al., is a method of determining coding scheme.

Regarding claim 29, Shaffer et al. teaches the computer program is further operable to modify the transcoding information in the call setup message by

incrementing a counter value of the transcoding information (**see column 7 line 22-29 where the number of transcoding is determined**).

Regarding claims 30, Shaffer et al. teaches the computer program is further operable to modify the transcoding information in the call setup message by appending information identifying an encoding format to the transcoding information (**see figure 4 box 408 determining an end-to-end codign scheme for the call (requiring a least number of transcoding) and col. 6 line 7-12 voice signal in G.723 may be transcoded into pulse code modulation (PCM)**).

Regarding claims 31, Shaffer et al. teaches the computer program is further operable to determine the second encoding format based on at least the transcoding information in the call setup message (**see figure 4 box 408 determining an end-to-end codign scheme for the call (requiring a least number of transcoding) and column 6 line 30-45 voice in GSM may be transcoded into PCM and may again be transcoded into G.711 or G.723**).

Regarding claims 32, Shaffer et al. teaches the computer program is further operable to determine the second encoding format based on at least whether a counter value of the transcoding information is less than a predetermined maximum (**see figure 6 box 654, 656, 658 and 660 where more than one end-to-end coding schemes are determined and compared, and figure 6 box 658 select result with minimum number of transcoding and where the higher number of transcoding corresponds to predetermined maximum**).

Regarding claims 33, Shaffer et al. teach the computer program is further operable to determine the second encoding format based on a cost associated with the second format **(see column 9 line 60)**.

Regarding claims 34, Shaffer et al. teaches the computer program is further operable to reject the call setup message, if the first encoding format and the second encoding format are different and a counter value of the transcoding information is equal to or greater than a predetermined maximum value **(see column 9 line 39-46 and figure 6B box 658 where more than one end-to-end coding schemes are determined and compared, and select result with minimum number of transcoding corresponds to reject the call setup message that has a greater value in transcoding, and the higher number of transcoding corresponds to predetermined maximum)**.

Regarding claims 35, Shaffer et al. teaches the computer program is further operable to identify the remote element to receive the call setup message based on at least the transcoding information **(see figure 5 box 508 gateway Y contacts client B and determines client B's capabilities available at the moment and figure 5 box 510 gateway Y sends a second signaling message to gateway X to inform gateway X of client B's and intermediate stations' capabilities)**.

Regarding claims 36, Shaffer et al. teaches the computer program is further operable to identify the remote element to receive the call setup message **(see figure 5A box 510 gateway Y sends a second signaling message to gateway X to inform gate X of client B's and intermediate stations' capabilities, and figure 5A box 512**

gateway X receives Q and determines an end-to-end coding scheme) based on at least whether a counter value of the transcoding information(see column 7 line 22-29 where the number of transcoding is determined) is less than a predetermined maximum (see column 9 line 39-46 and figure 6B box 658 where more than one end-to-end coding schemes are determined and compared, and select result with minimum number of transcoding, and the higher number of transcoding corresponds to predetermined maximum).

Regarding claim 37, Shaffer et al. teach a system for providing telecommunication service between a plurality of users (see col. 2 lines 17-25) comprising:

- means for receive a call setup message from the first network (see figure 5 box 502 call request is intercepted by gateway X), the call setup message signaling for a media channel for transporting media between a first device and a second device (see figure 4 box 400 sender sends a signaling message to receiver and figure 5 box 500 client A sends a call request to client B);**
- means for identify a first encoding format for the media communicated with the first network (see figure 4 box 408 determining an end-to-end coding scheme for the call (requiring a least number of transcoding) and col. 6 line 7-12 voice signal in G.723 may be transcoded into pulse code modulation (PCM));**
- means for determining a second encoding format for the media communicated with the second network (see figure 4 box 408 determining an end-to-end codign scheme for the call (requiring a least number of transcoding) and**

column 6 line 30-45 voice in GSM may be transcoded into PCM and may again be transcoded into G.711 or G.723);

- **modify transcoding information in the call setup message (see col. 7 lines 12-14 the signaling message collects capabilities of a station, the station may list its capabilities onto the signaling message which corresponds to modify transcoding information in the call setup message); the transcoding information indicating a number of transcoding points on the media channel (see col. 7 lines 21-29 and figure 4 step 408 end-to-end coding scheme which is determined for the call requires a least number of transcoding where it is inherent for it to identify the number of transcodings for it to determine a least number of transcoding out of the available);**
 - means for identify a remote element to receive the call setup message (see col. 6 lines 59-63 signaling message, such as a user-to-user signal may be used at the beginning of a call setup between parties to send a message between end parties); and
 - means for transmit the call setup message to the remote element (see col. 7 lines 12-14 the signaling message collects capabilities of a station, the station may list its capabilities onto the signaling message where this message with the listed capabilities would be sent to the end station).

Shaffer et al. does not specifically teach:

- if the first encoding format and the second encoding format are different,;

Shaffer et al. teach determining end-to-end coding scheme (**see col. 7 lines 1-30**), and identify the coding scheme of the sender and receiver, and along the call route and to determine a least number of transcoding transmission among the available. That is, it would identify if the sender and the receiver, and along the call route of their coding schemes, and would choose the least number of transcoding transmission among the available (**see col. 7 and lines 24-30**). And first signaling message may simply be sent to collect information regarding coding capabilities of other devices along the call route (**see col. 7 lines 53-60**). It would have been obvious to one of the ordinary at the time of the invention was made to include determining if the first encoding format and the second encoding format are different, modify transcoding information in the call setup message and indicating a number of transcoding points on the media channel, because determining end-to-end coding scheme through signaling message, as Shaffer et al., is a method of determining coding scheme.

Response to Arguments

5. Applicant's arguments filed 12/14/2007 have been fully considered but they are not persuasive.

With regard to applicant's remark for claim 1 (page 11), applicant submits that the Shaffer et al. fails to disclose:

1) communications from two networks and for two different encoding forms. Shaffer in column 4 lines 63-65 discloses data objects or program instructions, from another network, or might out put information to another network and col. 5 lines 9-10 across a network such as internet, intranet networks, or local area networks, therefore it

is inherent that it includes a second network; and two different encoding forms, Shaffer in column 6 lines 14-15 discloses a modern network which shows at least 6 different possible transcoding locations and col. 6 lines 30-45 shows a scenario where at least two transcodings take place. Therefore, a network/local area networks which has more than two transcodings is disclosed by Shaffer and meets the limitations, and thus rejection respectfully remains.

2) the transcoding information is modified. Shaffer discloses in column 7 lines 12-14 the signaling message collects capabilities of a station, the station may list its capabilities onto the signaling message which corresponds to modify transcoding information in the call setup message. Call setup message is modified as to list station's capabilities, and meets the limitations, and thus rejection respectfully remains.

3) the transcoding information identifies a number of transcoding points. Shaffer discloses in column 7 lines 21-29 and figure 4 step 408 end-to-end coding scheme which is determined for the call requires a least number of transcoding where it is inherent for it to identify the number of transcodings for it to determine a least number of transcoding out of the available and meets the limitations, and thus rejection respectfully remains.

4) a target (the remote element) is identified to receive this now modified call setup message. Shaffer discloses in column 6 lines 59-63 signaling message, such as a user-to-user signal may be used at the beginning of a call setup between parties to send a message between end parties, where end party would receive the call setup message. Furthermore, in column 7 lines 12-14 the signaling message collects

capabilities of a station, the station may list its capabilities onto the signaling message where this message with the listed capabilities would be sent to the end station. The end party would receive this modified (based on the listing of station's capabilities) message, and meets the limitations, and thus rejection respectfully remains.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Rabipour et al. (US2004/0131051) discloses method and apparatus for data communication.

Steinabch (5912897) discloses method for converting messages exhibiting formats in communication system.

Mangal (US7113582) discloses system for caller control over call routing paths.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Wutchung Chu whose telephone number is 571 270 1411. The examiner can normally be reached on Monday - Friday 1000 - 1500EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edan D. Orgad can be reached on 571 272 7884. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

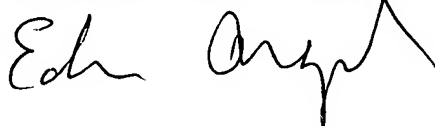
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/WC/
Wutchung Chu

EDAN .ORGAD
SUPERVISORY PATENT EXAMINER

Handwritten signature of Edan .ORGAD in black ink.